

Appl. No. 10/620,493  
Resp. dated February 15, 2005  
Reply to Office Action of November 16, 2004

Atty. Docket No. 331.1035

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Fig. 2. This sheet replaces the original sheet including Fig. 2. In Fig. 2, the previously omitted control unit 12 and level control unit 14 are shown.

Attachment: Replacement Sheet

**REMARKS**

In the office action, the drawings were objected to under 37 CFR 1.83(a) for not showing every feature of the claimed invention. Claims 1-11 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In addition, claims 1-3, and 11 were rejected as being anticipated by U.S. Patent No. 6,144,907 to Shibuya et al. (Shibuya et al.). Finally, claims 4-10 were deemed to be allowable if rewritten in independent form and to overcome the §112 rejections.

In this response, Applicant has amended claim 4. Claims 1-11 remain pending in this application. Withdrawal of the rejections and objections in view of the amendments and following remarks is hereby respectfully requested.

**A. Objections to the Drawings:**

The drawings were objected to under 37 CFR 1.83(a) for not showing every feature of the claimed invention. Specifically, the Examiner objected that the level control device and the electromagnetic actuator in claim 1 and the electronic control unit in claim 2 are not shown in the drawings.

Applicant has amended Fig. 2 of the drawings to include control unit 12 and level control system 14, which were described in the original specification, and have amended paragraphs [0017] and [0018] of the specification to be consistent with the amended drawings. No new matter has been added.

Applicant submits that the electromagnetic actuator is shown in Fig. 2 as pressure regulator valve 2. The point is further clarified by the amendment to claim 4, discussed below.

Withdrawal of the objections to the drawings is therefore respectfully requested.

**B. Rejections to Claims 1-11 under 35 U.S.C. § 112, second paragraph:**

Claims 1-11 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Examiner objected that recitations to the level control device and electromagnetic device were unclear with respect to the system shown in Fig. 2.

Applicant respectfully submits that the changes to Fig. 2, discussed above have obviated the rejections for indefiniteness. The level control device is now clearly shown in Fig. 2 and

described in the specification, for example, at paragraph [0017], and is well known in the art. Likewise, the electromagnetic actuator is shown in Fig. 2 as the pressure regulator valve 2, as further clarified by the amendment to claim 4.

Withdrawal of the rejections to claims 1-11 under 35 U.S.C. §112, second paragraph is therefore respectfully requested.

**C. Rejections to Claims 1-3 and 11 under 35 U.S.C. § 102(b):**

Claims 1-3, and 11 were rejected under 35 U.S.C. § 102(b) as being anticipated by Shibuya et al.

Shibuya et al. describes a suspension for construction machines that includes front suspension cylinders and rear suspension cylinders, an accumulator connected to the front cylinders through an electromagnetic change-over valve and a controller.

Claim 1 recites a hydropneumatic axle suspension having an adjustable axle-spring rate for a vehicle having varying axle loads.

- a first hydropneumatic accumulator;
- a hydraulic suspension cylinder having a cylinder chamber and an annular space;
- a first pressure-regulated suspension circuit connecting the cylinder chamber to the first hydropneumatic accumulator;
- a level-control device for regulating a pressure in the first suspension circuit;
- a second hydropneumatic accumulator;
- a second pressure-regulated suspension circuit connecting the annular space to the second hydropneumatic accumulator; and
- an electromagnetic actuator configured to automatically change the axle spring rate according to a predefined control mode.

Applicant respectfully submits that Shibuya et al. fails to describe several features of claim 1. Specifically, Shibuya et al. does not teach a second accumulator and a second suspension circuit connecting the annular space to the second accumulator. On the contrary, Shibuya et al. describes accumulators 7 connected only to the cylinder side, and not to the annular space side of the hydraulic suspension cylinders 3. Shibuya et al. also fails to describe an electromagnetic actuator configured to automatically change the axle spring rate according to a predefined control mode. On the contrary, the electromagnetic changeover valve 6 of Shibuya et

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al. merely opens and closes the connection between the cylinder chambers of the suspension cylinders and the accumulators, whereas, the suspension according to Applicant's invention includes a continually open passage between the cylinder chambers 22 and the first hydropneumatic accumulator 20.

Withdrawal of the rejections to claims 1-3 and 11 under 35 U.S.C. § 102(b) is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is now in condition for allowance. Should the Examiner feel that an interview would advance prosecution of the present application, the Examiner is invited to contact the undersigned.

Respectfully submitted,  
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